SÜRELİ YAYINLAR

CİM BULLETIN

NOVEMBER DECEMBER 2003

Optimization of the paste backfill plant at Louvicourt mine
J. Cayouette

The "Mill Redesign Project" at Inco’s Clarabelle Mill
A. Kerr, A. Bouchard, J. Truskoski, J. Barrett and G. Labonté

Variable speed SAG milling
M.N. Brodie

Removal and destruction of ammonia from a uranium plant effluent

Large-scale panel destress blast at Brunswick mine
P.P. Andrieux, R.K. Brummer, Q. Liu, B.P. Simser and A. Mortazavi

Mining law: Bridging the gap between common law and civil law systems
C. Siac

Effect of environmental variables on pitting corrosion
D. Gopi and S. Rajeswari

JANUARY 2004

Data integration for information technology infrastructure in mining
S. Dessureault, J. Porter and M. Woodhall

Capturing unrealized capacity
M.W. Lewis, J. Werner and B. Sambirsky

Reducing maintenance costs through predictive fault detection
Y. Faitakis, C. Mackenzie and G.J. Powley

The evolution of advanced guidance techniques for autonomous underground vehicles
L. Bloomquist, J. Law and C. Arnoldi

Slag loss control with Bessemer mattes
P. Toscano and T.A. Ulgard

FEBRUARY 2004

Diamond exploration targets, Michipicoten greenstone belt
A.C. Wilson

Geostatistical resource estimation for the Poura narrow-vein gold deposit
D. Roy, S.D. Butt and P.K. Frempong

Development of value-added zeolite products from St. Cloud Mining
J.M. Barker, P.S. Freeman, G.S. Austin and R.S. Bowman

Framework for optimizing components in an oilwell cement slurry design
D. Getzlafl

INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES

OCTOBER-DECEMBER 2003

955 Special Issue on rock stress estimation
J. A. Hudson and F. H. Cornet

957 Stress estimation in rock: a brief history and review
C. Fairhurst

975 An overview of rock stress measurement methods
C. Linggren, Yanting Chang, T. Janson and R. Christiansson

J. A. Hudson, F. H. Cornet and R. Christiansson

999 ISRM Suggested Methods for rock stress estimation—Part 2: overcoring methods
J. Sjöberg, R. Christiansson and J. A. Hudson

1011 ISRM Suggested Methods for rock stress estimation—Part 3: hydraulic fracturing (HF) and/or hydraulic testing of pre-existing fractures (HTPF)
B. C. Hainsón and F. H. Cornet

1021 ISRM Suggested Methods for rock stress estimation—Part 4: Quality control of rock stress estimation*1
R. Christiansson and J. A. Hudson

1027 Stress, instability and design of underground excavations
C. D. Martin, P. K. Kaiser and R. Christiansson

1049 Determination of stress orientation and magnitude in deep wells

1077 Measurement of in-situ stress in weak rocks at Mont Terri Rock Laboratory, Switzerland
C. D. Martin and G. W. Lanyon

1089 Enhancing rock stress understanding through numerical analysis
R. Hart

1099 Stresses in anisotropic rock masses: an engineering perspective building on geological knowledge
F. Tonon and B. Amadei

1121 Evidence of thermally induced borehole elongation: a case study at Soultz, France,
T. Bérard and F. H. Cornet
1141 Quality control of overcoring stress measurement data
M. Hakala, J. A. Hudson and R. Christiansson

1161 A test of different stress measurement methods in two orthogonal bore holes in Aspö Hard Rock Laboratory (HRL), Sweden
R. Christiansson and T. Janson

1173 Evaluation of measurement-related uncertainties in the analysis of overcoring rock stress data from Aspö HRL, Sweden: a case study
D. Ask

1189 Updating the use of the CCBO cell in Japan: overcoring case studies
Y. Obara and K. Sugawara

1205 Stress measurements in deep boreholes using the Boire (SSPB) probe
J. Sjöberg and H. Klasson

1225 Electrical imaging and hydraulic testing for a complete stress determination
F. H. Cornet, M. L. Doan and F. Fontbonne

1243 Shallow hydraulic fracturing measurements in Korea support tectonic and seismic indicators of regional stress
B. C. Haimson, M. Y. Lee and I. Song

1257 The hydromechanical behaviour of a fracture: an in situ experimental case study
F. H. Cornet, L. Li, J. -P. Hulin, I. Ippolito and P. Kurowski

1271 Current stresses in the rock mass near the Kola superdeep borehole (SG-3)
S. N. Savchenko and A. A. Kozyrev

JANUARY 2004

3 Estimation of rock mass deformation modulus and strength of jointed hard rock masses using the GSI system
M. Cai, P. K. Kaiser, H. Uno, Y. Tasaka and M. Minami

21 Shaft resistance of a pile embedded in rock
A. Serrano and C. Olalla

37 Design of anchorage and assessment of the stability of openings in silty, sandy limestone: a case study in Turkey
H. Akgün and M. K. Koçkar

51 Wear of rocks by water flow
A. W. Momber

69 Numerical analysis of initiation and progressive failure in natural rock slopes—the 1991 Randa rockslide
E. Eberhardt, D. Stead and J. S. Coggan

89 A geo-engineering classification for rocks and rock masses
T. Ramamurthy

103 The significance and prediction of different rock mass characteristics for rock engineering
Q. Liu, F. J. Brosch and G. Riedmiller

119 Micromechanics-based continuum model for a jointed rock mass and excavation analyses of a large-scale cavern
H. Yoshida and H. Horii

147 Geomechanical behaviour of laminated, weak coal mine roof strata and the implications for a ground reinforcement strategy
B. K. Hebblewhite and T. Lu

159 Effect of fractures on in situ rock stresses studied by the distinct element method
Shengrui Su

165 Identification of subsurface structures using the seismic-while-drilling technique
N. Soma, M. Utagawa, M. Seto, A. Cho and H. Asanuma

175 An inductive strain sensor for operation in high pressure environments
J. Nurkowski

FEBRUARY 2004

181 Real-time computerized tomography (CT) experiments on sandstone damage evolution during triaxial compression with chemical corrosion
Xia-Ting Feng, Sili Chen and Hui Zhou

193 An estimation method for cover pressure re-establishment distance and pressure distribution in the goaf of longwall coal mines
H. Yavuz

207 Variation of rock quality designation (RQD) with scanline orientation and length: a case study in Korea
S. Y. Choi and H. D. Park

223 Stress-strain-electrical resistance effects and associated state equations for uniaxial rock compression
Gengye Chen and Yunmei Lin

237 A decay function model for the integrity loss of rock when subjected to recurrent cycles of freezing-thawing and heating-cooling
M. Mutlutürk, R. Altindag and G. Türk

245 The flattened Brazilian disc specimen used for testing elastic modulus, tensile strength and fracture toughness of brittle rocks: analytical and numerical results

255 The ways ahead for rock engineering design methodologies
Xia-Ting Feng and J. A. Hudson

275 Development of an automated servo-controlled direct shear apparatus applying a constant normal stiffness condition
Y. Jiang, J. Xiao, Y. Tanabashi and T. Mizokami

287 Borehole breakouts and compaction bands in two high-porosity sandstones
B. Haimson and H. Lee

303 Numerical modelling estimation of the ‘tectonic stress plane’ (TSP) beneath topography with quasi-U-shaped valleys
Chengxuan Tan, Ruijiang Wang, Ye Sun, Weizhi Lei, Shuren Wu, Meiling Yang and Weifeng Sun

311 Analysis of deformation localization and the complete stress-strain relation for brittle rock subjected to dynamic compressive loads
Xiaoping Zhou, Quling Ha, Yongxing Zhang and Keshan Zhu

321 Infrared radiation of rock impacted at low velocity
Lixin Wu, Yuhua Wu, Shanjun Liu, Guohua Li and Yongqiang Li

329 Application of a new in situ 3D laser scanner to study the scale effect on the rock joint surface roughness
INDUSTRIAL MINERALS

DECEMBER 2003

6 News at The Core: Alcoa Speciality Chemicals Sold
21 Comment: The Dragon Matures
22 Market monitor: Japanese Refractories
28 All Shook Up-Non-metallurgical Calcined Alumina
36 Drilling Barytes Going Forward
41 New pastures For Magnesia-Refractories Market For Dead Burned Magnesia
48 On The Tiles -Selecting The Right Raw Materials For Ceramic Tiles
55 Mineral Spotlight: Nepheline Syenite
57 Continental Drift: Chinese Mineral Processing
58 Russian Gypsum
60 South African Minsands
61 Canadian Graphite
62 Minerals on The Move: Gulf Sulphur-Liquid Gold
66 Processing: Crunch Time-Cone Crushers
71 Making The Grade: Ball Clay and Kaolin
76 Legal Eye: Resource Management
79 Exposure: Senegal Mineral Sands

MINERALS ENGINEERING

DECEMBER 2003

1327 Drying kinetics of nickeliferous limonitic latérite ores
C. A. Pickles
1339 2D simulation model of mineral particles yielded by discriminatory size reduction
C. Guimarães and F. Durão
1349 Mechanochemical processing of chrysocolla with sodium sulphide
A. N. Banza and E. Gock
1355 Prediction of worn geometry in cone crushers
M. Lindqvist and C. M. Evertsson
1363 Mechanism of aqueous uranium (VI) uptake by natural zeolitic tuff

A. Krestou, A. Xenidis and D. Panias

1371 Cobalt and zinc recovery from copper sulphate solution by solvent extraction
K. Kongolo, M. D. Mwema, A. N. Banza and E. Gock
1375 Axial inlet cyclone for mineral processing applications
T. Yalcin, E. Kaukolin and A. Byers

1383 Study on morphology of copper deposited onto aluminium by immersion plating from an oxalate bath containing perchloric acid
M. Kanungo, K. G. Mishra and S. C. Das

1387 Wear performance and cost effectiveness—a criterion for the selection of grinding media for wet milling in mineral processing operations
T. W. Chenje, D. J. Simbi and E. Navara

1391 The flotation behaviour of W-(3-aminopropyl)dodecanamide on three aluminosilicates
S. M. Zhao, D. Z. Wang, Y. H. Hu, B. D. Liu and J. Xu

JANUARY 2004

1 Fracture toughness and surface energies of covalent minerals: theoretical estimates
D. Tromans and J. A. Meech

17 Zinc and lead extraction from complex raw sulfides by sequential bioleaching and acidic brine leach
M. X. Liao and T. L. Deng

23 A kinetic description of percolation bioleaching
H. M. Lizama

33 The adhesion of gold to oil-carbon agglomerates
X. Q. Wu, R. J. Gochin and A. J. Monhemius

39 Calculation of degree of mineral matter liberation in coal from sink-float separation data
T. Oki, H. Yotsumoto and S. Owada

53 A comparison between capillary and imaging techniques for sizing bubbles in flotation systems

63 Reverse flotation for removal of silicates from diasporic-bauxite
Y. Wang, Y. Hu, P. He and G. Gu

69 Electrical separation of plastic materials using the triboelectric effect
Mihai Lungu

77 Application of different collectors in the flotation concentration of feldspar, mica and quartz sand
E. Sekulić, N. Canić, Z. Bartulović and A. Daković

81 Estimation of flotation kinetic parameters by considering interactions of the operating variables
E. C. Çilek

87 Estimating true level in a thickener using a conductivity probe
J. Vergouw, C. O. Gomez and J. A. Finch

89 Synergistic effect of MEHPA on co-extraction of zinc and cadmium with DEHPA
E. Keshavarz Alamdari, D. Moradkhani, D. Darvishi, M. Askari and D. Behnian

93 Development of a new coal washability index
A. K. Majumder and J. P. Barnwal

97 Reactivity of limestones from different sources in Turkey
Ç. Hoşten and M. Gülsün

101 Corrigendum to "Comparative study of solvent extraction of vanadium from sulphate solutions by primene 81R and alamine 336 [Minerals Engineering 16 (2003) 291-294]"
L. J. Lozano and C. Godinez

R. R. Moskalyk and A. M. Alfantazi

A. I. Zouboulis, K. A. Matis, N. K. Lazaridis and P. N. Golyshin

MINING ENGINEERING

DECEMBER 2003

FEATURE ARTICLES

18 China's coal industry at the crossroads
Jerry C. Tien

23 Experts discuss reserves reporting at SME meeting
Steve Krai

27 Caterpillar 5090B offers higher load capacity
Tim O'Neil

29 United Nations’ emergency preparedness program available to mining industry

30 TECHNOLOGY NEWS Handbook gives guidance in selecting excavators

31 TECHNOLOGY NEWS Proper lubrication lengthens equipment life 32 More than 400,000 expected at bauma 2004

TECHNICAL PAPERS (peer reviewed and approved) 33 Drilling and blasting practices in Nevada’s openpit mines
I.R. Firth and P. Mousset-Jones

39 Leveraging energy-management resources: applications for the mining industry
V. Bush, T.G. Killingsworth and E.P. Ruffel

42 Reclamation of prime farmland following mineral sands mining in Virginia
W.L. Daniels, P. Schroeder, S. Nagle, L. Zelazny and M. Alley

JANUARY 2004

FEATURE ARTICLES

23 Quarry expansion - sustainable management of natural aggregate
William H. Langer and M.L. Tucker

29 Market access through transportation efficiency
J.M. Barker

32 Peruvian mining convention focuses on sustainable development
William R. Yernberg

36 Borehole mining: getting more versatile
Marcus A. Wiley and Gregory Abramov

TECHNICAL PAPERS (peer reviewed and approved)

41 Technical note: Productivity gains using a computer-aided earthmoving system on a track-type dozer
D.R. Gagnon

45 Thinking outside the box - new ways to close old tailing basins
P. Eger, A. Johnson, S. Dewar, B. Anderson and P. Churak

52 Dynamic systems-modeling approach to evaluating hydrologic implications of backfill designs
M. Wickham, B. Johnson and D. Johnson

FEBRUARY 2004

FEATURE ARTICLES

17 Trends in availability of aggregate
G.R. Robinson Jr.

25 Phelps Dodge, Caterpillar use technology to lower costs
Steve Krai

28 Improved prices spur optimism at the Northwest Mining Association meeting
Steve Krai

TECHNICAL PAPERS (peer reviewed and approved)

33 Treatment of metals-impacted ground water with a semipassive, organic apatite system
M. Calabretta, B. Stasney, G. Harvey and D. Morell

41 Collaborative ergonomics field research: An assessment of risk factors at four mines
İLKLER
BİZİM
İŞİMİZ

Üçüncü nesil patlayıcılar olarak en iyi daha güvenli ve esnek kullanımı imkânları sağlayan emulsiyon patlayıcıları ve ANFO’yu ürettik.

Geleneksel elektrikli kastıtlara oranla çok daha güvenli ve uygulama salası geniş olan Elektriksziz Ateşleme Sistemi (NONEL)‘i kullanıma sunduk.

Alt yapı projelerinde patlattıkların daha bilinçli, güvenli, kontrollü ve ekonomik yapılması sağlanmak üzere daha kastıtlarla Patlama Hizmetleri bölümüne müşterilerimizin hizmetine sunduk.